WHAT IS CLAIMED IS:

In combination, multiple series ~~connected photovoltaic cells~~ and a substrate structure,

said photovoltaic cells including a support structure comprising a cell metal-based foil having a light incident top surface and a bottom surface separated by a thickness,

said photovoltaic cells further comprising semiconductor material positioned on at least a portion of said light incident top surface,

said cell metal-based foil having a foil length and foil width, the full extent of said foil width specifying a linear dimension whose endpoints define first and second cell foil terminal edges,

said substrate structure comprising one or more electrically conductive substrate regions, said conductive substrate regions comprising a conductive surface extending over a conductive surface width, said conductive surface width defined as being in the direction of net current flow between series connected cells, the maximum extent of said conductive surface width defining first and second terminal edges of said conductive surface,

said substrate structure further comprising at least one electrically non-conductive substrate region joined to a first of said conductive substrate regions,

said combination characterized by having said bottom surface of said support structure of a first of said cells attached to said conductive surface of said first of said conductive regions and having said bottom surface of said support structure of a second of said cells being attached to said at least one non-conductive substrate region,

said combination further characterized by having cell positioning of said cells on said substrate structure such that a line drawn in said conductive surface width direction between said terminal edges of said conductive surface is intersected by ~~a said~~ cell terminal edge of at most a single cell.

Add A1

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